1: Karsten--54
116, 342

Fig. 2.
A typical bamboo house at Macas. Inhabited by the government's representative.

"In their general construction the houses of the Jibaro Indians are of the same type as the great communal houses, known from the Amazon territory and from Brazil, called maloca. The house is elliptical in shape and has a length of 15 to 20 meters and a breadth of 8 to 10 meters. The roof is supported by two or three big posts of strong chonta wood in the longitudinal direction, and at each side there are other shorter poles. The roof consists of several layers of dried palm leaves, carefully plaited into a thatch called kambaŕaka. Similarly the walls are constructed with great care and consist of a row of strong chonta poles placed vertically and tied to horizontal bars by means of lianas. Since there are no openings serving as windows in the walls, narrow intermediate spaces of about two centimetres are left between the poles, through which the daylight filters. These cracks in the walls also allow the inhabitants of the house to look out and watch persons approaching; but on the other hand they may make it possible for enemy spies to watch the inmates of the house and even to attack them with natural or supernatural weapons. In time of war therefore the houses of the Jibaros [95] are specially fortified by means of extra walls and in other ways, as we shall see later on (Pl. X, 3, and 4).

The roof (kambaŕaka), consists of plaited palm leaves, and in the tropical climate is liable to be attacked by insects and gradually destroyed, so it has to be renewed after the lapse of some years. In building a new house therefore the Jibaros observe the

following custom. On the fire kindled in the new house no manioc or palm cabbage can be cooked until it has been purified by burning cedar wood (Cedrela herrerae), the smoke of which will penetrate the thatch and kill the insects existing in it. In this way the thatch, according to the idea of the Jibaros, is not only purified for the time being, but permanently. If manioc or palm cabbage is cooked in the new house before the said procedure, certain maggots, which easily develop in the manioc plant and in palm tops, will infest the thatch and soon destroy it. Until the house has been purified in the way indicated these kinds of vegetable food must be cooked in a special, small shelter outside the new house.

The house has always two doors, one at each end of the house, the one being used by the men, the other by the women. A Jibaro house, it should be noticed, consists of two departments, of which one is intended for the women and children and called ekinturu, the other for the men and for guests and called tangamasha. The quarter intended for the women is at once recognized by certain special arrangements. All round the walls in a Jibaro house there are low banks of split bamboo, called peaka, which serve as seats during the day and as sleeping places at night. These bunks or sleeping racks in the men's department are without edges or sides, but in the women's department each of them is fenced round with split bamboo, or in some cases only banana leaves, thus forming partitions closed in on three sides, somewhat resembling

horse-boxes. For each of the wives in the house there is such a box: here the small children are kept as well as the dogs, the latter always tied up since, extremely savage and angry as they are, they would otherwise not hesitate to attack visitors. -- No guest is expected to enter the house except through the door leading to the men's department, nor can he, without special permission, enter the interior of the house or the women's department. Only a guest who is well known to the Indans, or has lived for some days in the house, can enter there or occasionally use the backdoor also. Whereas the married men sleep in the ekinturu, the full-grown sons and other unmarried men always spend their night in the tangamasha, where each has his sleeping rack and [96] where occasional visitors may also take possession of a peaka for the night. The women are generally in the ekinturu, cooking food at one of the fires on the floor or doing other domestic tasks, and as a rule they set foot in the men's department only to offer manioc-beer to their husbands or to guests, or to bring them food."

1: Karsten--98 (1916-18) 1935 Jivaro
116, 342 (1928-29)

"Such is, in its main features, the interior of a Jibaro house. It is intended to lodge a considerable number of people, not only the family-father himself with his wives and their children, but also the married daughters with their husbands and children and some older relatives, especially in the male line. At the great feasts a Jibaro house may shelter anything up to a hundred persons."

1: Karsten--98 [2] (1916-18) 1935 Jivaro
116, 342, 352 (1928-29)

"As to the houses of the CANELOS INDIANS (huasi), they differ from those of the Jibaros proper chiefly in that they are much smaller and that walls are usually lacking. These Indians have not the same interest in fortifying their houses as the Jibaros. In the interior of the house the sleeping benches are almost the only kind of furniture seen, but what at once attracts the attention in the houses of the Canelos Indians is the great number of all sorts of clay vessels which are arranged on shelves under the roof, many of them beautifully ornamented."

"That the Jibaros are professional warriors also appears from the way in which they construct their houses and from the defensive measures to which they have recourse when particularly threatened by their enemies. The houses themselves are constructed with great care, and as we have seen, even in times of peace are provided with walls of strong chonta poles. When a family is particularly threatened by enemies the house is fortified in a special way. On the outer side of the ordinary wall another wall is made, consisting of big chonta stems, so that the house has two walls, one close to the other (Pl. X, 3.4). Within the houses, all along the walls, a number of small rooms or partitions, about 1 meter in height, are likewise made of chonta poles, each having a small hole in the outside through which the warrior can shoot his attacking enemy. There is one such small room for each defender of the house. The partitions will afford the warrior protection in case the enemies are able to penetrate into the house. As to the doors, there are two in each Jibaro house, one at each end of the house, one for the men, the other for the women. These doors generally consist of six chonta poles, the upper ends of which are united by means of strong lianas, while the nether ends are free and can be separated from each other, three to each side, making an opening of triangular form. The whole opening is so small, however, that only one man at a time with some difficulty can enter the house. During the night the poles forming the doors are always carefully closed and fastened by a transverse pole applied to the inner side,

so that the entrance of undesirable persons is made impossible. Even the outer wall in a fortified house has a special door consisting of similar poles, which can be closed from the inside.

Not only the houses themselves but also the manioc and banana plantations situated close by are protected in a similar way by high fences [262] of strong chonta poles. The aim of this arrangement is to prevent the enemy from approaching the house through the plantations.

Formerly, before the use of firearms was so general among the Jibaros as it is now, the chiefs especially were in the habit of constructing a sort of war tower at one end of their houses. These towers were of quadratic form and sometimes 20 or 30 meters in height. On the top of it there was a small room about 4 meters in quadrate and with walls about 1 meter in height, made of strong chonta poles, which protected the defender against the lances of the enemies. The whole thing rested upon pillars of the stem of the chonta palm, and the warrior ascended along a stair consisting of wooden logs with incisions which gave him foothold. These war towers were called kumbinta. After the Jibaros began to make use of firearms in their wars these measures of defence proved less fit for the purpose, and consequently were no longer used."

"As has been indicated elsewhere, the Jivaro houses are usually erected singly in defensible situations on the headwaters of affluent streams rather than on the main rivers. The typical Jivaro house (pl. 1) is about 75 or 80 feet in length with a width of from 40 to 45 feet. It is approximately elliptical in shape with parallel side walls and rounded ends. The walls are made of chonta palm laths and bamboo or cane stakes, about 9 or 10 feet in height. These stakes are set close together and lashed firmly with strips of bark or vine.

The roof is made of palm thatch and is typically supported by seven tall upright posts, as shown in figure 2. A ridge pole about 40[89] feet long extends between the central posts. From this, rafters constructed of poles are dropped to the eaves, the lower ends of these poles extending about 2 feet beyond the stakes forming the walls of the house. These rafters are lashed into place with bark and vines. The rafters forming the ends of the house radiate from the end posts in the form of spokes from a common center.

At each end of the house is a door, one to be used by the women and the other by the men. The doors are the full height of the walls and consist of three or four heavy slabs of hewn timber set vertically in slots at the top and bottom. In order to enter the house it is necessary to lift these planks at the bottom and set them to one side. They can be barred from the inside by a crossbar which prevents them from being lifted. As a vari-

ation to this type of door, sometimes doors are constructed of a broad hewn plank, the full width of the entrance (pl. 26, a). Sometimes this type of door is attached by means of bark or leather hinges.

The cracks between the wall stakes provide ample ventilation and in the daytime sufficient light enters between them to prevent the interior from becoming gloomy. The floor is of packed earth, which is kept neatly swept at all times."

2: Stirling--89 (1930-1931) 1938 Jivaro
116, 342

"On the Chinganasa River a house in process of construction was observed (pl. 27, a). The skeleton of the house had been erected, the uprights and roof poles being mostly in place, tied together with vines. On the floor of the house were coils of vines to be used for binding purposes and more cut poles for roofing. There were also several baskets of wet yellow clay which had been used for packing the holes in which the upright posts had been set, obviously for the purpose of setting them in place more firmly. The clay had been tamped in place about the base of the posts by means of wooden stakes. Alongside the new house had been erected a small temporary shelter under which were neatly stacked palm leaves to be used for thatching the roof.

In addition to the typical permanent house just described, the Jivaros on the lower Santiago and on the Marañon occasionally construct houses of a different sort. These consist merely of a thatched roof supported by a ridge pole held up by two tall end posts and terminating against low uprights 2 or 3 feet high at the edge of the eaves. This type of house has no walls and as a rule is intended as a more or less temporary home (pl. 27, a)."

2: Stirling--89[2] (1930-1931) 1938 Jivaro
116, 342

"The architectural plan of the jivaría varies to some extent depending upon the size of the house. A small jivaría such as that of Hisama on the Chiagoasa has a single center post with a short ridge pole lashed on top of it in the form of a T."

2: Stirling--90 (1930-1931) 1938 Jivaro
116, 342

"The house of Sakacha was built on the edge of a 30-foot bluff on a small hill in the jungle a couple of miles from the left bank of the Marañon about 10 miles above the junction with the Santiago. This house was a long, rambling structure, about 14 feet wide and 60 feet long, with low eaves and no side walls or ends. It was supported by five center posts arranged more or less in a row. There were four men, three women, and five or six children living in this house."

3: Simson--386 (No date) 1880 Jivaro
116, 342

"Their houses are large and built of 'chonta' or 'tarapoto' palms, split in two and standing vertically in the ground, close to each other, like a stockade; the principal stakes for supporting the roof being entire stems of the same palms. The roof is composed of rafters of bamboo, and thatched with interwoven palm-leaves, principally 'yarina.' The ground-plan of the house is shaped like a bagatelle board, square in front and round at the back, with doors at both ends."

4: Up de Graff--204-205 (1897) 1923 Jivaro-1
116, 342

"In the corners of the clearing thus made, the houses are built. The ground having been carefully 'scalped,' palms are cut down, trimmed of their tops and cut to a length of from fifteen to twenty feet. This particular wood is selected for its durability and strength. For each house six posts are prepared, the two center ones supporting the centre of the gable being some four feet longer than the rest. They are sunk firmly into the ground, at an interval of about seven feet between the centre posts and the corner posts, thus giving the house a width of fourteen feet and a length of about twenty feet. This is the average size for a family of one man and six wives. Sometimes larger houses are built, with [205] extra supports for the ridge-pole, in which two or three families live together. The framework having been completed by a number of saplings placed parallel on the three main horizontal roof supports (these saplings are technically known as perlines) and tied with green bark on rattans, the house is ready for its palm-leaf thatch. The latter is made of many layers of gigantic leaves; split down the centre of the spine and folded over double, six or eight layers bound securely together forming the regular unit of which the thatch is built, and corresponding in wooden houses to one slate or shingle. As in the modern roof, these units are placed to overlap, forming a final thickness of eight to ten inches, which not even a tropical downpour can penetrate. The framework of such houses can last indefinitely, but the roof must be renewed every eight or ten years on account of the inroads of insects; the underside is preserved from

the latter by smoke, but the outer layers are exposed to their attacks. On entering by one of the gaps at either end which serve as doors, a somewhat bare interior is seen."

10: Anthony--159 (1920-21) 1921 Jivaro
116, 342

"The Jivaro hut is a simple affair, made of a long, rectangular frame of poles stuck into the ground and thatched over with the leaves of palms or plantains. The fire is built inside on the ground and the smoke finds its way out through the most convenient openings."

Generally, there are many families living in a single house, usually about 15 people united by close family ties. The building has the form of an elongated ellipse (1) (fig. 10), the long axis of which measures 15 to 25 meters. The framework is made in the following manner: two posts about 4 meters high, placed in the foci of the ellipse, support a longitudinal ridge-pole, four other posts measuring about 3 meters in height, located on the periphery at the angles of the [584] rectangle inscribed in this ellipse, support two transverse longitudinal timbers which outline this rectangle. All this framework is of chonta wood (Bactris Iriartea) and the joints are secured with the aid of lianas. The walls (2) are made of cane-stalks (Guadua angustifolia) placed close together; in addition

1. It would be more exact to say that it represents a rectangle, the short sides of which are replaced by semi-cirles. Simson, among the Pindos, and Reiss, at Macas, saw a slightly different construction, in which only one of the short sides of the rectangle, the one corresponding to the rear part of the house, was semi-circular; the doors, as in the ordinary type, were made facing the ends of the long axis. One of the houses visited by Reiss was 26 m. long, 18 m. wide and $7^{m}50$ high. --Alfred Simson. "Notes on the Jívaros and Canelos Indians" (Journal of the anthropological Institute of Great Britain and Ireland, 1880, vol. IX, no. 4, page 385). --Reiss, op. cit., page 330.

2. In the regions of the Jíbaro country that can be called civilized, where the fear of attacks has disappeared, this wall has been done away with and the house is only a vast shed.

to this they are reinforced on the inside to a height of $1^{m}50$ from the ground by planks of chonta or caña about 5 cm. wide, arranged in such a manner that their joints never coincide with the interstices of the exterior wall. This precaution is for the purpose of preventing an enemy thrusting his lance through the fissures and striking the Jíbaro in his bed, which, as we shall see, is backed up against the partition. The battens are made of caña stalks spaced $o^{m}50$ apart and placed in diverging rays from the longitudinal beam to the peripheral beams; cross-beams placed at the same distance from each other complete the lattice work upon which the roof rests; the roof is formed of little bundles of straw called cambana or of leaves of a kind of Pandanus (cambaalga), skillfully imbricated from the edges toward the center.

There are also two doors placed at the extremities of the long axis of the ellipse, measuring about 2 meters high and 50 cm. wide. Sometimes, as an aid to defense, they are still more narrow. One of these doors is reserved for the women, the other for the men and this rule is never violated save for some very serious reason. We see there the first manifestation of the separation of the sexes, so accentuated in Jíbaro country.

12: Rivet--585
116, 342, 356

(no date) 1907

Jívaro

The house proper is composed of a single room (1), sometimes divided by a transverse partition in the center; the floor is composed of the beaten earth, perfectly levelled and kept in a state of great neatness.

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1. At Macas, Reiss saw houses divided into three rooms by transverse partitions: the outer room served as a reception room, the central room as the kitchen, the rear room as the bedroom. Reiss, op. cit., page 330-331.

18: Hermessen--442 (No date) 1917 Jivaro
116, 342, 462, 361

"Within a radius of several miles from Jamboé there were several Jîbaro houses, each standing alone in a separate clearing a little way back from the river, with a belt of forest interposed, so that they were effectually concealed from view from the water. All were exactly alike--rectangular in plan, with rounded ends, about 60 feet long by 30 feet wide, and constructed of bamboo on a framework of big poles lashed together with lianas. At either end was a door of solid wood, usually kept securely bolted on the inside. The roof was high-pitched and made of palm thatch. Several families of blood relations lived together in one house. There was no partition between the quarters of the men and those of the women, as Orton and others have noted as a detail of the dwellings of the Indians (Záparos) on the Napo and other rivers of the Oriente province of Ecuador, (18) but the rear portion was always allotted to the females."

"18. James Orton: The Andes and the Amazon, New York, 1876, p. 171."

20: Dyott--156
116, 342, 712

(no date) 1926

Jivaro

"Kuashu's home, in all its rough simplicity, was exactly like every other Jivaro establishment. Amongst the dozens I have visited, I have never seen the slightest signs of originality exhibited in their construction. Except for size, they are all identical. The absence of an outer wall, sometimes noted, only indicates the poverty or laziness of the owner. With increase of family, it will be added and the dwelling made to conform to the universal standard. In the more unsettled areas, I have come across defence towers (kumbinta) built alongside the house, and it is not uncommon to see an extra row of short poles planted outside the wall about six inches away, with the intervening space filled with stones; but such things are merely additional safeguards against attack."

20: Dyott--156-157
116, 562, 342

(no date) 1926

Jivaro

"Some writers claim that the Jivaros sub-divide their houses into special quarters for men and women, but I have never come across this. I have frequently noted a sleeping rack to be roughly fenced about, affording a slight measure of privacy to the pair who occupied it; but as to bringing about a general separation of the sexes, I cannot recall ever having seen it done."

25: Vigna--41[3] (no date) 1945 Jivaro
116, 342

In the House of the Jíbaro. The house of the Jíbaro is rectangular and terminated at its extremities by two semi-circles, in which are found two doors: the common door and the door reserved for the family. The walls are made of pierced cane or with hard logs, tied with reeds. [bejucos] The roof is of straw and the doors generally are solid and of a single piece. During the night they are firmly barricaded.

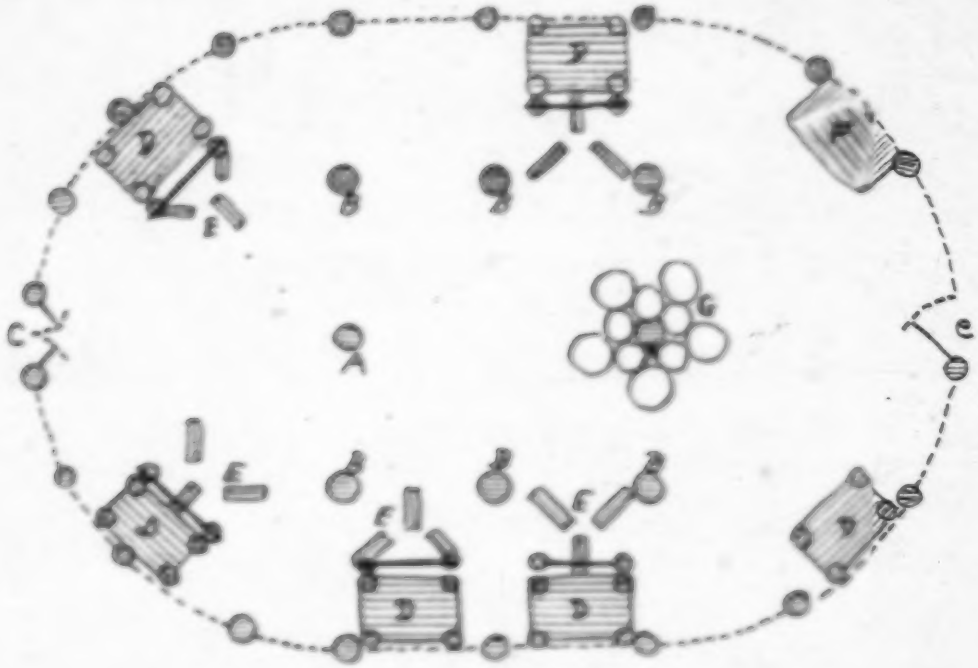

Figure 1. Groundplan of a Hut.

116, 342

Construction begins with the erection of a provisional scaffold which serves as a support for the workmen. The ground plan of the house (Fig. 1) has almost the shape of a large oval, that is to say, the two long sides run parallel, and at each end there is a half circle. Two round, smooth trees, 6 - 6.5 meters in length, constitute the foundation of the house. These trees are set up as uprights in the centers (A in the drawing) of the two half circles. On top the two uprights are connected by the roof-tree. On either side of the central uprights three additional uprights (B), shorter than the central ones, are set up. The tops of these outside uprights are connected with the roof-tree by means of a square frame. The walls are formed by means of thin posts which on top are connected with each other. The rafters rest on these thin posts and, in turn, support the laths. Everything is firmly tied with lianas, bast, and chambira. Next comes the roof, which is built with special attention as you may expect it in a country where there is hardly a day without rain. The material used are the leaves of various palm trees that had been seasoned long in advance. In Timasto, I have seen a special storehouse for the prepared plaited leaves, that had been stored here over a long period of time. A layer of large, pinnate and plaited palm leaves is first placed upon the laths. (Illustration number 1 shows such palm leaves, partly plaited, in the foreground.) Next, loose leaves are placed upon the first layer (see Illustrations 2, 3, and 4). The roof projects about one meter beyond the wall. When I first visited one of these houses in S. Antonio [52] on the Muchingis (a village about one rowing-hour distant from Nazaret),

26: Brüning--51-52 (1902) 1928 Jívaro-2
116, 342

I beheld with admiration a roof which, as to its construction, surpassed all the roofs of the coastal and mountain Indians and even of the whites. The cleanliness and tidiness of the Indians is generally another point in their favor.

26: Brüning--52 (1902) 1928 Jívaro
116, 342

After the completion of the roof the house is ready for occupancy. The outside wa[illegible] is only gradually finished. The Indians use for it split Chonta palms or even bamboo. These walls permit enough light to go through for the illumination of the interior. As for the doors there do not seem to exist any fixed rules: I found them in the middle of the long side, but also at one end, and even at both ends. I had an opportunity for a closer study of the house of the Curaca Laichape in Huaracayo. In this house there was at one end (toward the river) a double door, and at the other end (toward the forest) a single door. These doors were crudely made out of one piece, as thick boards hewn with the axe. In Huavico I noticed a door which was made of plaited palm leaves. The Curaca, who was our host, used this door as an umbrella when he was once forced to leave the house during a heavy rain.

26: Brüning--52 [2] (1902) 1928 Jívaro
116, 342, 592

The houses are always very spacious since they have to serve more than one family. According to one of my informants, such a house is inhabited by up to 50 persons. As a rule it is the Curaca, as the chief, with his children and their wives and husbands. And since a Curaca may have up to ten wives, the great number of dwellers can be explained without difficulty. The aforementioned house of the Curaca Laichape had a width of 10 meters and a length of 15 meters. 20 - 30 persons lived in this house.

The house (hŏa) is a combination of a frame-house and a three-purlin house. It has ridge-purlins that touch the ground. At each one of the gable sides there is a semicircular projection. (See Plate 60, Fig. 2) The walls consist of upright panels of Iriartea-wood. Loopholes are frequently cut out, as may be seen on Plate 66. Very interesting is the nomenclature of the component parts of such a house. The ridge-purlin with its supports is called tsĭitsĭimeruke, the ridge-purlin itself is called tsĭitsĭimeruke-esari, while the term for the support is tsĭitsĭimeruke-axiami. The frame structure is called makŭi; its component parts have special designations: the longitudinal beam of the frame is called makui-esari, the cross-beam: makui-pauri or makui-yangeri; the upright supports are called makui-axiami. The side-purlin and its supports are called numbixi, the side-purlin itself: numbixi-esari and the supports: numbixi-axiami. The semicircular projections are called texeri, its roundliana: itingamori and its uprights: tsĭikitsĭik. The rafters of the saddle-roof are called awangeri, the three main spars of the semicircular extension: akuxkamori, the secondary rafters: texeri awangeri, the crossbeam to which the secondary rafters are tied on the top: anuxtukmori.

In each one of the semicircular extensions there is a door: wáitiri Newly introduced are ridge-purlin supports, tixeraseri (from the Spanish tijeras), that rest in pairs on the frame. Their lower end is sharpened to a point, which is inserted into the

cross-beam close to the frame-supports, so that only two pairs of such ridge-purlin supports are required. Frequently they are used in addition to the ground-supported ridge-purlin uprights. There are no other cross-beams.

Refuge huts are called aăk. They consist of two cross-beams, one being higher than the other. The spars are placed across the longitudinal beams. See cartogram no. 8.

The information given about the hŏa was gathered from the Atschual Indians. If I remember it correctly, the houses of the Aguarunas were of like construction. In the Aguaruna territory I saw the most primitive huts erected on sandbars as an overnight accomodation. They slept on a layer of leaves. Where they had their heads, they had several of the fan-shaped leaves of the Carludovica palmata or a palm-frond. Cf. cartogram no. 8.

31: Danielsson--84-86 (1946-48) 1949 Jivaro
116, 571, 592, 342, 361

"The only social unit is the family, which term is used for describing all individuals related by birth or by intermarriage and living in the same house. Each such house forms an independent social, political and economic [86] unit. The houses have large dimensions (fifty by one hundred feet is not an uncommon size), and a house may contain up to fifty persons. The family houses are scattered in sparse clusters along the rivulets. Two houses are seldom found together, and the distance between the separate houses generally varies from one to five miles. (The locations of each family house dealt with in this study are shown with Roman figures on Map II. The houses indicated are all that exist in the mapped area.)"

/330 cont./ Each house

361 lies alone by itself, as though lost in the forest, and is usually
342 inhabited by only one family, rarely by several. In approach-
ing, certain precautionary measures must be observed to ensure
a friendly reception. The visit is announced from a great dis-
tance by shouting, but in the immediate vicinity of the house
one marches in absolute silence. This is done in order to
demonstrate peaceful intent, since during an attack the Jivaro
steals quietly through the forest, but then rushes with a loud war
whoop across the open plaza to the house.

342 The houses, the tsenken, are real forest palaces, ex-
124 tremely clean and regularly built, with successful utilization
of the materials provided by the forest. The high roof, beauti-
fully plaited out of palm leaves, is supported by several rows
of slender columns, the faultless trunks of giant palms; the
rafters are decoratively arranged in such a way that they can be
considered ornamentation. The walls all around, made of tightly
fitted split bamboo, fill hardly half the space between the floor
and the edge of the roof, so that air comes in freely and yet
342 protection against a first attack is assured. Each house exhibits
two doors, one on the straight front wall, the other in the center
of the semicircular, projecting rear-side. The house of a
young chief was 87 feet long, 60 feet wide, and about 25 feet
353 high, an airy, beautiful building. The front third served as a
sort of reception room. Shield and drum were hung on the palm
trunks supporting the roof; special contrivances permit the
secure placement of the lances and blowguns, whose quivers
352 are put near the fires. /331/ Some low sitting-benches carved
out of wood take the place of chairs, low benches made out of
split bamboo are placed along the walls, and several frames of
the same type serve as couches for the men so that they may take
a siesta during the day. These latter contrivances are peculiar
in that there is space on them for the body only about to the
knee, but the foot rests on a slender crosspiece supported by
359 two forks for the support of the freely projecting leg. Directly
in front of this pedestal a very smoky fire burns continuously.

/331 cont./

354 [825] almost scorching the soles of the person resting. The smoke of the fire is supposed to provide protection against the mosquitoes, which are almost unbearable here. -- The center part of the 342 [353] tambo is kitchen, dining room, and common living room, in which pots and utensils are kept in the best order. Finally, in the semicircular, bulging part located at the back are the bed-
352 rooms of the families. A number of beds, similar to the couch
342 described above, each with a fire probably kept going all night, are placed symmetrically along the side walls. Each individual bed is bounded on three sides by rather high bamboo walls and open only toward the foot end, so that small sleeping cells, [353] so to speak, independent of one another, are formed. Each person living in the house has his own cell, on the walls of which is hung his private property, in the case of women cosmetic articles and ornaments in particular, packed carefully
342 in decorative bags. What is most striking during a visit to such
356 a house is the cleanliness and neatness with which the whole is maintained. everything stands in its particular place, is readily and surely available, and at the same time is fixed in such a way that it serves to decorate the room. -- The floor is level and tamped hard, like a threshing floor, and is absolutely clean. When I let some cigar ashes fall during my visit, one of the women came immediately to sweep the floor clean again. Not all the houses are equally large and stately; the same strict order and cleanliness which I have just tried to describe do not prevail in all, but even the dwellings that are not maintained as well seem an enviable stopping place to the traveler who has languished in the dirt of Hispano-American housekeeping for years.

515 The people are as clean as the dwellings, but this luxury in a warm climate among half-wild people is less expensive than among us. In general, it is sufficient that the whole family goes in the morning to the neighboring brook for a bath, for clothing
291 plays a very subordinate role. The men wear a cloth about two and a half spans wide, called itipe, around their loins, which is usually held fast by a broad belt (acachulu) plaited out of human hair. The women are wrapped in a larger cloth (tarache) which

/334 cont./

628 now retreating attackers, and thus new members all too easily become involved in the endless chain of blood revenge.

The terrible custom demands ever new, ever more victims, all security must disappear, every individual constantly [342] lives in danger of being ambushed; there is a general and perma- [574] nent state of war. Hence the arrangement of the houses, one [576] door of which can be used for flight, while the battle rages at [231] the other; hence the customs mentioned at the beginning in connection with approaching a dwelling, for the protection of which, 628 in addition, a pack of half-wild dogs are kept. A quarrel be- 648 tween two families must lead to battles between whole tribes; larger groups of tribes become hostile to one another; war and battle become customary, a man's lifework. A longer period of quiet, of peace, must be unbearable for such a nation of warriors. Ambitious, bold leaders will easily find companions for joint war-expeditions; the neighboring nations are attacked and plundered. Thus, these Indians are carrying on among themselves a war of annihilation which must gradually bring about [161] their own downfall. Severe depopulation is already noticeable [164] in the region of the Jívaros, and it is being accelerated by [175] epidemics, of the diseases introduced by the Europeans, which appear with great violence at times.

727 It may be that the Jívaros themselves do not place very much confidence in the truth of their own war reports, or perhaps there are other reasons for demanding positive proof of the executed blood revenge and courage, but this much is certain, only the one who can display the head of the enemy as a trophy is regarded as victor. Thus all the effort goes into beheading the enemy. This is easy in an ambush, but more difficult in a regular 726 battle. The warriors are armed with shield and lance; and lately 41 with large forest knives. The circular shield, carved out of a 714 single piece of soft and light wood, is about half as high as a man; the lance, made out of a thin, hard palm shaft (chonta) provided with a tip made out of bone or iron, is six to seven feet long or more. The troops advance close together, each man in a bent position protected behind his shield; the lance rests in the

335 cont.

better, forehead bands (tendemas), with neck and arm bands made of the teeth of monkeys and wild animals. The women wear richly decorated bindings around their hips, on the fringes of which are fastened rattles and clappers so that a loud noise is produced during the stamping dances. A weapons dance is performed, during which all the available zanzas, this is the name of the trophy heads, are paraded in triumph. The enthusiasm aroused by dancing, music, and drink is said to reach such a pitch that the weapons dance frequently ends in bloody seriousness.

When the supplies are gone and the intoxication slept off, the house built for the festival is deserted and left to decay -- unless after some time another family moves in and undertakes the repairs.

336/ A house must be deserted after a death, just as after such a festival. In order to be relieved of the inconvenience of moving and probably also out of superstitious fear of the dying hopelessly ill people are ruthlessly exposed in the forest. A small hut of branches is built for them, some food is put nearby, and they are left to their fate.

If a war expedition is to be undertaken or if an important decision is to be made, the higher powers are called upon, and their suggestions are decisive. The Jivaro retires to the solitude of the forest, intoxicates himself on an infusion of poisonous lianas, and then considers the outcome of his deep dreams as a command of the gods. For this ceremony a prominent point is chosen, from which one looks down on the Sangay, which seems to play an important role in the religious beliefs of these Indians. And how could this surprise anyone, given the terribly beautiful spectacle presented by the black, barren, and open cone set upon the highest ridges. The volcano, 5,323 meters high, is continuously active, like Stromboli. Thick black clouds of ashes are spewed out with a thunder-like noise, accompanied at night by the most magnificent sheets of fire. From the highest peak to the forest region a brilliantly glowing strip of fire moves down the slope, rolling along like a stream of molten metal. Many

34:Harner E-4, 5 (1956-1969)1973 SD9 Jivaro SD9

Chapter II

SHELTER, SUBSISTENCE, AND TECHNOLOGY

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I am like an anaconda.
No one can get near my house
Because there is a lake around it.
I am a jaguar,
The bravest that is,
And no one
Can get near my house.

Sung by a man to his enemies when he believes that they are about to attack

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The center of Jivaro life is the individual house, normally occupied by a polygynous nuclear family and surrounded by a garden in deep isolation in the forest. The house is typically built beside a small stream on a hillock where there are stands of soft or medium-hard wood. Such trees, especially palms, are easy to cut down to make garden clearings and are also preferred for house construction and firewood. The location of the house on high ground is not only better for drainage, but also furnishes a view across the surrounding garden to facilitate defensive fire in case of enemy attack (see Plate 2).

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The dwelling is usually a large and well-made structure, oval in ground plan, with a single-gabled roof (see Figure 1). The roof is made of closely woven *kampanki* palm thatch and is supported by nine center posts as well as by the smaller

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house wall posts. The windowless wall is built of stout chonta palm (*Guilielma* sp.) staves set vertically into the ground about an inch apart to permit light and air to enter.

/p. 41/ /text continues on p. 43/

34:Harner E-4.6 (1956-1969)1973 SD9 Jivaro SD9

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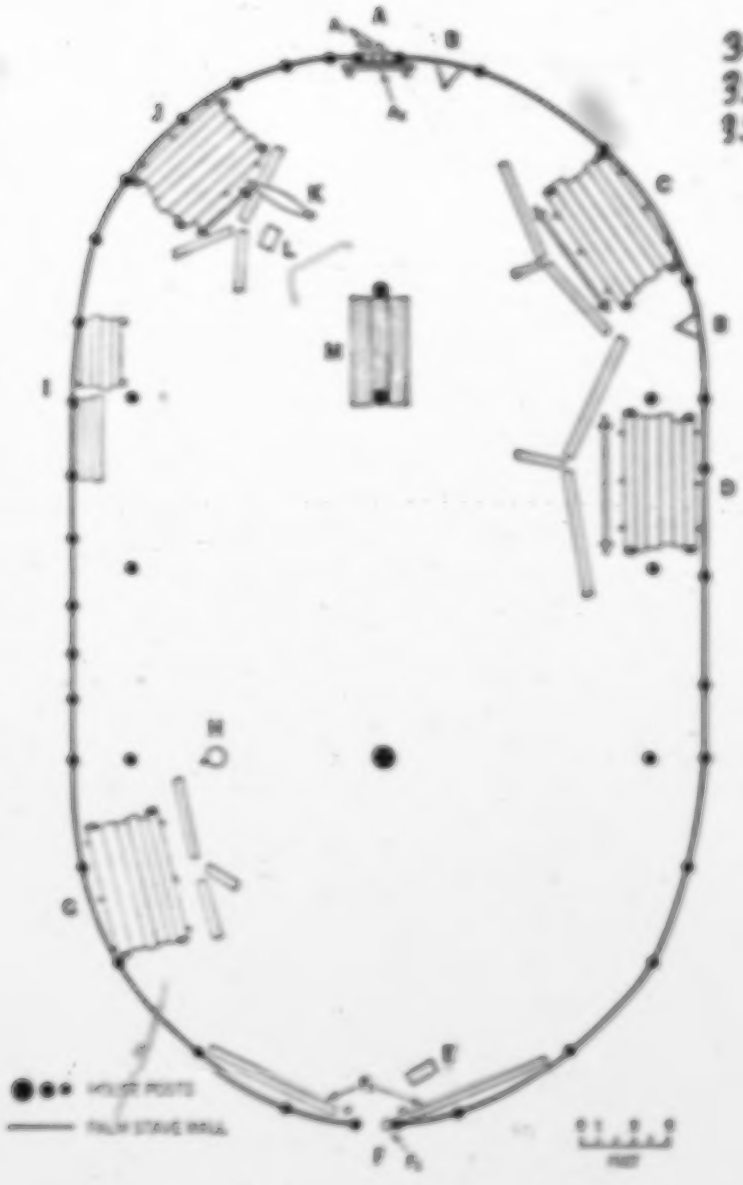

/p. 42/

FIGURE 1

Floor plan of a representative house (upper Río Cangaimi, 1957)

34:Harner E-4, 5 (1956-1969)1973 SD9 Jivaro SD9

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KEY TO FIGURE 1

A Doorway at women's end of the house
- A_1 Removable door posts in upright position
- A_2 Crossbar holding door posts in place

B Chicken nest formed by a wedge of two palm slats against the base of the house wall

C Older wife's palm-slat bed, with crossbar footrest and three fire logs

D Married daughter's (and son-in-law's) bed

E Ordinary rectangular stool (*kutanŭ*), placed for use by a male visitor

F Doorway at men's end of the house
- F_1 Removable door post (left upright in the door)
- F_2 Removable door posts laid on the floor for use as visitors' benches

G House owner's bed, for his daytime napping and for use by overnight visitors

H House owner's round stool (*čimpuš*)

I Palm-slat platforms built above the reach of small children for the storage of large pottery vessels

J Younger wife's bed

K Younger wife's baby's hammock, made of a piece of cloth suspended between two poles

L Ordinary rectangular stool placed for use by the younger wife in cooking and making manioc beer

M Split guadua bamboo platform suspended between house-posts to support food and beer bowls. Underneath are the large beer-brewing jars of both wives.

34:Harner E-4. 5 (1956-1969)1973 SD9 Jivaro SD9

and to allow the inhabitants to see out and to fire at attackers. The interior of the dwelling is unpartitioned, constituting a single, long dirt-floored room with a doorway at each end. Floor plan dimensions of several houses were found to range from approximately 25 to 36 feet in width to about 40 to 60 feet in length. A representative house was 27 feet wide by 44 feet long with a maximum roof height of about 15 feet and with walls 7 feet high.

To protect the inhabitants from enemy attacks, the doorways (Figure 1, A, F) are closed with strong hand-hewn wooden doors or removable wooden posts locked into position with a crossbar. An extra layer of chonta palm staves is sometimes lashed to the house wall near the beds. This double wall covers the slits between the palm staves to protect sleeping members of the household from being shot by would-be nighttime assassins. If local feuding is at a particularly high pitch, logs may be laid horizontally against the inside of the house wall to form a breastwork about four feet high. Foxholes are also sometimes dug into the floor to permit firing from low points on the breastwork and to provide shelter for the women and children. A secret escape tunnel occasionally extends underneath the wall, coming up in the garden outside.

Houses ordinarily are occupied five to nine years, even though the gardens are abandoned more frequently, usually after three or four years' use. The chief reason given for abandoning the house after only five or six years is a scarcity of palm fire logs in the immediate vicinity. A dearth of wild game is often a supporting reason for early abandonment. If, however, palm logs and game remain plentiful, the dwelling is normally occupied until it starts rotting. The bases of the wall staves are usually the first parts to decay, but the house often is not abandoned until the roof begins to

34:Harner E-4, 5 (1956-1969)1973 SD9 Jivaro SD9

leak. Occasionally, such leakage does not occur significantly until the ninth year of occupancy.

If structural decay alone forces abandonment of a house, the new one is constructed sometimes only fifty to a hundred yards away. More frequently, however, poor hunting conditions necessitate the construction of the new structure two or three miles distant. Sometimes the scarcity of game requires a move to a greater distance, ten miles or more. In the not infrequent cases when a man and his family flee the neighborhood to escape assassination attempts, the new dwelling may be erected forty to eighty miles from the previous site. The death of the male head of the household is also cause for abandonment.

Houses are constructed by the men. While most of the building work technically could be done by the dwelling owner himself, he is generally helped by one or two close male relatives living nearby. The transportation and erection of the main house posts are the only tasks requiring a larger crew. For this effort, the owner invites about half a dozen male neighbors to help him.

Posts, beams, roof and walls are all lashed firmly together with strips of inner tree bark. Proceeding painstakingly, a man usually constructs a large and impressive structure capable of withstanding not only the natural elements and enemy attack, but also critical evaluation by his neighbors. The size and quality of a man's house is regarded as a serious indication of his personal "power," *kakarma*.

A family averaging only about nine persons typically occupies these rather large houses. While to a casual observer the size of the house might seem excessive in terms of everyday needs, the large floor space is deemed essential for hosting visitors, who are often guests coming to drink and dance. Since dancing is never done outdoors, where persons would

34:Harner E-4, 5 (1956-1969)1973 SD9 Jivaro SD9

2. Side view of a Jivaro house and its surrounding garden (upper Río Yuquipa region, 1956–57).

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/p. 90-a/

34:Harner E-4, 5 (1956-1969)1973 SD9 Jivaro SD9

9. Jaguar skin being dried for trade to the frontier Jivaro (region between the upper Río Macuma and the upper Río Cangaimi, 1956–57).

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34:Harner E-4, 5 (1956-1969)1973 SD9 Jivaro SD9

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10. Man (left) and wife sleeping in a new house, in which the walls are still under construction (Río Cunsumi, 1956–57).

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11. Hunting dogs tied to beds to sound the alarm in case would-be assassins attempt to approach sleeping members of the household in the night (Río Cunsumi, 1956–57).

/p. 90-H/

84:Harner E-4. 5 (1956-1969)1973 SD9 Jivaro SD9

721 killing of a specific individual in the same tribe which characterizes feuding. A less emphasized war objective is to capture women. No case could be found of war being pursued to seize territory.

628 721 765 There is a "gray" area in which the patterns of feuding and war overlap to a limited degree. This seems to be a reflection of such factors as the absence of a tribal political structure, the intermittent escalation of intra-tribal feuding, and the relative isolation of many neighborhoods from one another. Thus, while full-fledged head-taking raids are only launched against other groups "that speak differently," i.e., have different dialects or languages, such as the Achuara, the assassination of a man belonging to a very distant neighborhood within the tribe may be followed occasionally by the taking of his head or by taking hair from his head to make a *tsantsa* with a tree gourd (see pp. 147–48). The latter type of *tsantsa* may also be made with the hair of a victim from a closer neighborhood provided that enmity towards its population is extremely strong in the killer's own locality.

[727] [825]

726 701 727 554 624 A war or head-taking raid is organized by a man who is a *kakaram*, and who has previously killed at least three or four persons.[2] When the *kakaram* decides to lead a raid, he asks an *untā* of his neighborhood, ideally a respected, elderly man who has also killed at least several times, to be the *wea*, or master of ceremonies, for the first celebration when the raiding party returns. If he agrees, the *kakaram* and some of the expected participants in the expedition build the *wea* a new, large house for the feast, the construction work usually taking some months.

[796] [342]

726 702 When the house is finished, and about two weeks before the planned expedition, the organizer sends spies to the Achuara neighborhood he plans to attack in order to select the most likely house(s) for assault. Then he sends a son or son-in-law

34:Harner E-4, 5 (1956-1969)1973 SD9 Jivaro SD9

532 sometimes is also placed under each eyelid, filling any slight
765 aperture which may remain.
727 A total of approximately six days of such intermittent prep-
778 aration is normally involved in the preparation of the *tsantsa* until it is its final size, slightly larger than a man's fist. The
[796] last day of work on the trophy is usually spent in the forest within a few hours' walk from the neighborhood where the first *tsantsa* celebration or feast will take place. So that the head-taker will be able to hang the *tsantsa* from his neck in the celebration, a hole is made in the top of the head and a doubled *kumai* bark string is inserted and tied to a short stick of chonta palm on the inside.

727 When the war party arrives at the neighborhood from
624 which they departed, they do not go directly to the *wea*'s
796 house but rather to the home of a nearby neighbor. A young man is sent to advise the *wea* that "now we are coming with
[554] plenty of dried fish," alluding to the heads of the Achuara.
[342] The *wea* then sends him and others to inform households in his own and adjacent neighborhoods of the victory and to tell them to come in two days to attend the first *tsantsa* celebration (*nunpey*) which is held at the newly built house of the *wea*.

The *wea* also immediately goes to visit the war party
[765] at the neighbor's house. Each head-taker holds up his *tsantsa*, wrapped in cloth "to keep the hair in place," for inspection by the *wea*, who parts the fabric, bends down and smells each one, saying, "It is delicious fish. It has an excellent smell." After having thus inspected the results of the raid, the *wea* returns home. In two days, the war party follows, is joined at the *wea*'s house by their relatives and neighbors, and all participate together in a brief, two day, version of the *tsantsa* celebration (see pp. 146–47 for the basic religious ideas involved in this and the subsequent feasts).

34:Harner E-4. 5 (1956-1969)1973 SD9 Jivaro SD9

When this first *tsentsa* feast is concluded, the head-takers return to their separate homes and begin to make preparations for the two subsequent feasts which each of them will host individually. Since enormous quantities of beer and food are consumed at these celebrations, the head-taker normally has to clear additional garden space for his wife or wives to plant to assure an ample supply of manioc. The first of these two celebrations, named *nawak*, normally takes place no sooner than after a year, to allow time for garden clearing and the growth of a large mature crop of manioc as well as for the raising of pigs to help provide meat for the feasting. Also the host may delay the celebration in order to build a new, larger house more worthy of the occasion. Thus, often two or three years pass before a man gives the feast.

To assure a large quantity of wild game for the feast, men who are close relatives of the host separately go hunting long distances from the house for a period of approximately nine or ten days before the opening day. Lacking any mnemonic system for keeping count of the days accurately, they are able to time their return to coincide with the arrival of the guests at the feast with the aid of an ingenious device which might be called a "banana clock." That is, the host gives each hunter a green cooking banana or plantain from the same stalk, which is one of those hanging in the house to ripen for the feast. When each of the hunters' plantains is almost fully ripe, they know that it is time to return for the celebration. The host also sends or delivers plantains from the same stalk to those invited guests living at some distance so that they, too, will arrive at the same time.

The celebration lasts five days and is followed, about a month later, by the third feast (*napiy*). This is the largest of all, with the head-taker supplying food and drink for six days. He must be able to provide plentifully for all his guests or the

34:Harner E-4, 5 (1956-1969)1973 SD9 Jivaro SD9

198 721 441 growth of inter-tribal trading partnerships, whose participants and their relatives have a vested interest in the maintenance of inter-tribal peace to protect the partners. Relatives of the traders threaten to apply sanctions against their own tribesmen if they should initiate war against the Achuara. The Achuara, who have the same interest in maintaining the trading system, similarly discourage inter-tribal raids against the Jivaro.

198 411 726 [342] [712] [714] Winchesters and shotguns have almost entirely replaced palm-wood thrusting lances as the chief combat weapon both for offense and defense. Formerly, spears thrown with the spear-thrower were used along with thrusting lances in attacks, while poisoned blowgun darts and double-pointed palm throwing sticks were used in household defense, the latter being cast from now vanished house towers. Round wooden shields, formerly universally carried in combat, are likewise no longer used in fighting, due to their inadequacy against guns. The use of shields is now restricted to rare ritual functions, especially in the *tsantsa* feast. Such ceremonial feasts have considerably diminished in size and frequency as a consequence of the decline in inter-tribal head-taking raids.

[796] [727] 178 342 411 712 726 Changes in house construction during the past few decades have been influenced primarily by the adoption of fire-arms for fighting. Formerly, the roof of the house was sometimes surmounted by a wooden defensive tower from which missiles could be showered onto attackers. Today such towers have entirely disappeared, since the use of guns by attackers only made the position of defenders in the towers untenable.

At the same time, the use of firearms has encouraged the construction of breastworks of horizontally placed logs inside of house walls as a protection against gunfire. The

34 Harner E-6, 5 (1956-1969).973 SD9 Jivaro SD9

digging of footholes in house floors is a related new development. The construction of double walls behind beds has become common to protect sleepers from assassins attempting to shoot between the palm staves of the house wall at night. The construction of escape tunnels has declined considerably since the lessening of inter-tribal warfare, for their prime function was to provide a means of escaping the wholesale attacks and sieges which only occur in the inter-tribal head-taking raids. Log signal drums are now also relatively rare, due to the adoption of firearms, whose discharge is sufficient in itself to alert neighbors when an attack occurs.

178 342 411 712 726 [202]

A decline has occurred in the last three or four decades in the numbers of pigs kept, which is ascribed primarily to the fact that manioc feasts now have become much less frequent due to the lessening of inter-tribal warfare. The raising of pigs was primarily directed towards having a large supply of meat for such feasts. The capturing and taming of wild animals and birds has increased, however, because of the demand for these by Jivaro trading partners to the west, who trade them to the whites of the frontier.

178 231 [196] [439]

Hunting has become more important as an activity to procure skins and feathers for trade, although there is no indication that such specialized hunting has resulted in an increase of meat consumption in the household. The adoption of firearms has tended to increase the hunters' efficiency in killing rare birds, such as the cotingas, which are prized for their plumage and are difficult to stalk at close range. Firearms also have facilitated the hunting of dangerous wild animals for their skins, especially the jaguar and peccary, which were formerly hunted with the lance.

178 224 223 411 [439] [262]

Besides firearms, blowguns and curare dart poison are also utilized for hunting to a greater degree than was the case several decades ago. The intensified use of blowguns has

178 184 438 278 411 [224]